SESSION 5

Title

Near-Earth and Interplanetary Communications

Description

This session addresses systems with relative motion between space and ground segments operating in both near-earth and interplanetary environments, with particular regard to their unique concepts, techniques and technologies.

Date

2010-10-01 09:00

Room

Terrasse 2

IPC members

- Chair: Mr. Manfred Wittig, European Space Agency (ESA), The Netherlands;
- Chair: Dr. Ramon P. De Paula, National Aeronautics and Space Administration (NASA), United States;
- Rapporteur: Mr. A. Bhaskaranarayana, Indian Space Research Organization (ISRO), India;

PAPERS

Order	Confirm	Mode	Paper title	Main author	Affiliation	Country
1			A Technology Roadmap for Interplanetary Communications	Dr. Andreas Rathke	Astrium GmbH	Germany
2			Ka-Band Deep Space Communication of JAXA	Dr. Tomoaki Toda	Japan Aerospace Exploration Agency (JAXA)	Japan
3			Ka-band High-rate Telemetry System Upgrade for the NASA Deep Space Network	Mr. Remi LaBelle	Jet Propulsion Laboratory	United States
4			On the potential of optical telemetry transmission on interplanetary missions	Mr. Thomas Dreischer	RUAG Aerospace Ltd.	Switzerland
5			Link budget analysis for small optical transponder onboard small satellites	Dr. Morio Toyoshima	National Institute of Information and Communications Technology	Japan
6			Satellite Constellations for Data Transfer from the Moon	Mr. Quirin Funke	TU Muenchen	Germany
7			Overhead Reducing Communication Strategies on the Surface of a Distant Planet	Mr. Laszlo Bacsardi	Budapest University of Technology and Economics	Hungary
8			Analysis of the Contact Graph Routing Algorithm: Bounding Interplanetary Paths	Mr. Edward Birrane	The John Hopkins University Applied Physics Laboratory	United States

9	Efficient Routing in Disruption-Tolerant Spacecraft Networks	Mr. Eleftherios Skoutaris	University of Luxembourg	Luxemburg
10	MULTI-OBJECTIVE COMMUNICATION OPTIMIZATION METHODOLOGY WITH APPLICATION TO LUNAR ROBOTIC EXPLORATION.	Ms. Alessandra Babuscia	Massachussets Institute of Technology (MIT)	United States
11	The Frontier Software-Defined Radio: Mission-Enabling, Multi-Band, Low-Power Performance	Mr. Christopher Haskins	The John Hopkins University Applied Physics Laboratory	United States
12	Project AGORA: Simultaneously Downloading a Satellite Signal around the World	Mr. Ghulam JAFFER	Graz University of Technology	Austria
13	The research on Folded Linear Turbo Decoder for Lunar Communicaition	Ms. Ying Zhang	Beijing Aerospace Automatic Control Institute	China